AIRLINK 101™

1-Port USB 2.0 Print Server

Model # APSUSB201

User's Manual

Ver. 2A

Table of Contents

1 Introduction

Congratulations on purchasing your 1-Port USB 2.0 Print Server. It is the easiest and fastest way to deploy printers on your network.

This compact Print Server uses your network router to connect various computers and printer together. It manages the flow of print files from computers to the connected printer, delivering print jobs to high-performance printer much faster than a file server or a PC acting as a print server can.

The Print Server features a Web-based Configuration Utility, which allows you to set up the Print Server through the web browser easily and quickly. It also includes a powerful software called, **PS Utility**, a user-friendly program that allows you to configure some basic functions of the Print Server such as performing a factory reset or updating the firmware.

1.1 Package Contents

Unpack the package and check all the items carefully, and be certain that you have:

- One 1-Port USB 2.0 Print Server
- One AC Power Adapter
- One Quick Installation Guide
- One Installation CD containing the PS Utility program and the User's Manual

If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packaging materials in case you need to ship the unit in the future.

1.2 System Requirements

Operating System:
- Microsoft Windows 95/98/ME/NT/2000/XP/2003
- Apple Mac OS (with Apple Talk support)

For Web Configuration:
- Java-enabled web browser, such as Microsoft® Internet Explorer 5.0 or Netscape Navigator 6.0

2 Hardware Installation

2.1 Connecting the Print Server

Warning: Only a USB printer may be connected to the USB port of the Print Server. Connecting any other USB device to the Print Server may damage the Print Server.

Note: Do not plug the power cord to the Print Server until you have reached **Step 4** of this section.

Step 1 Connect one end of the Ethernet cable to the RJ-45 port of the Print Server and attach the other end of the cable to a router.

Step 2 Make sure the printer is powered **OFF**, then connect one end of the USB cable to the USB port of the Print Server and attach the other end of the cable to the USB port of the printer.

Step 3 Power **ON** the printer.

Step 4 Plug one end of the power cord into the Print Server and the other end into an electrical outlet.
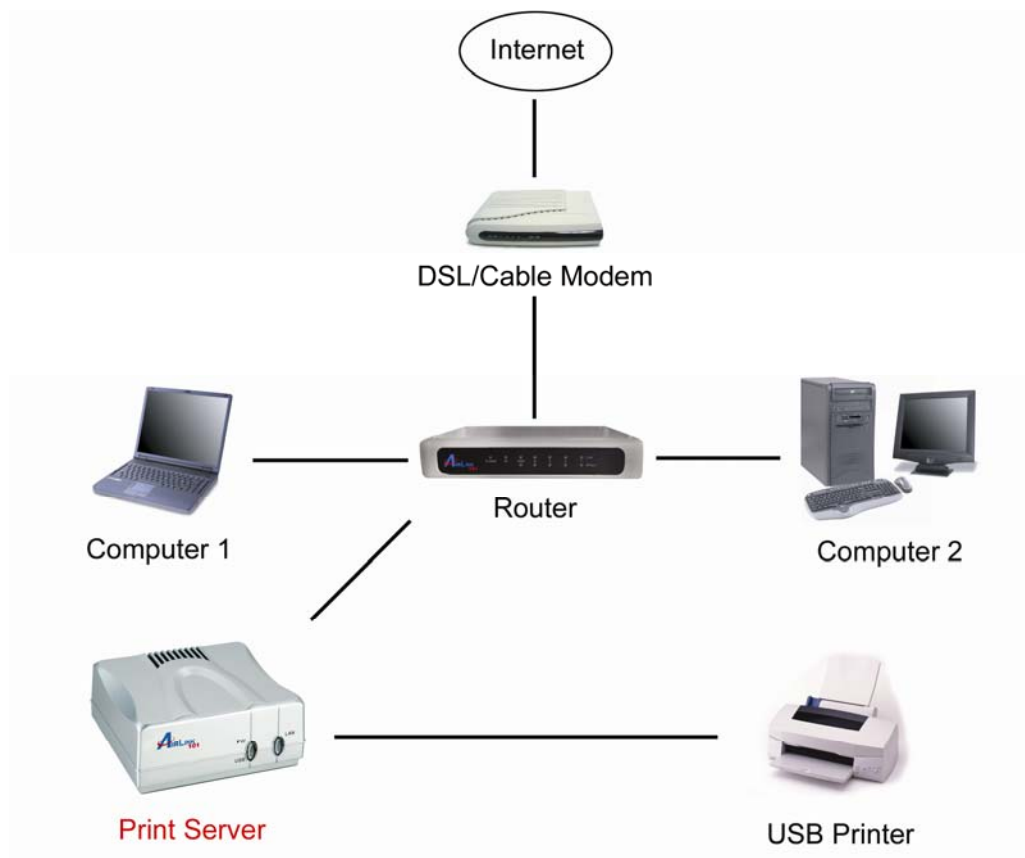
3. Installing PS Utility

Step 1 Insert the provided CD and wait for the setup menu to appear.

Step 2 Click on **PS Utility**.

Note: If the setup menu does not appear automatically after you have inserted the CD, go to **Start**, **Run**, type **D:\autorun.exe** (where **D** is the letter of your CD drive) and click **OK**.
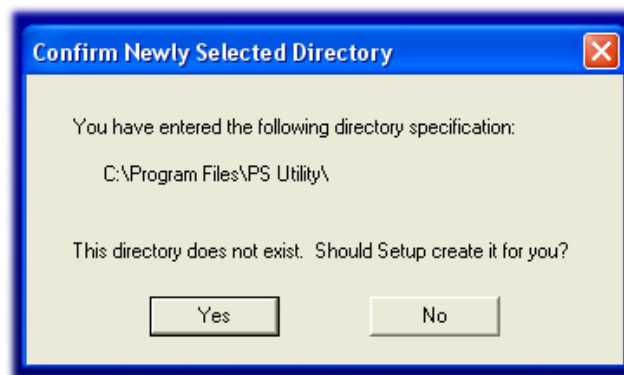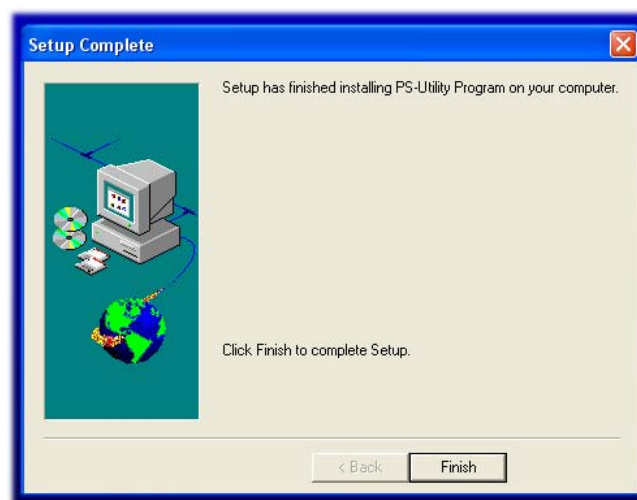
Step 3 Click **Next**.

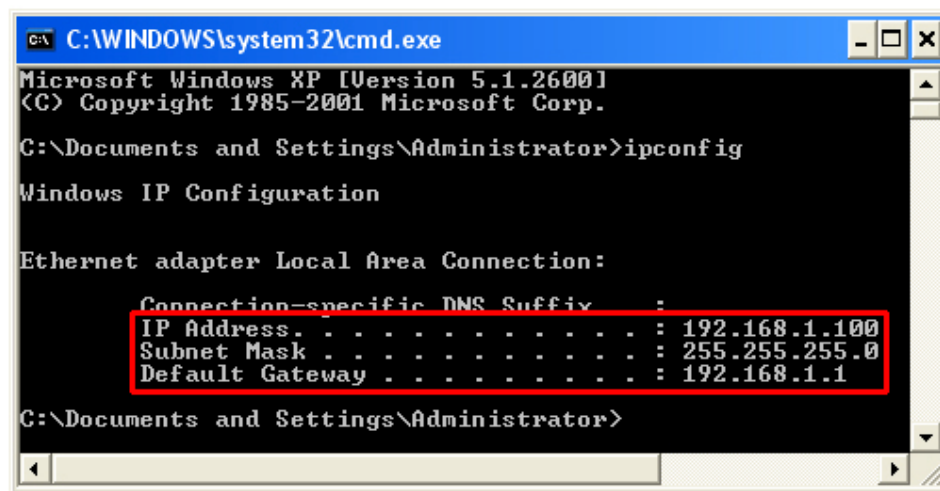**Step 4** Click **Next**.

Step 5 Click **Yes**.

Step 6 Click **Finish**.

4. Configuring Network Setting

Before configuring the Print Server's network setting, please take note of your computer's TCP/IP setting.

Step 1 Click on **Start**, **Run**, and type **command** (for Windows 95/98/ME) or **cmd** (for Windows 2000/XP) and click **OK**.

Step 2 At the command prompt, type `ipconfig` and press **Enter**.

Step 3 Write down the information for the **IP Address**, **Subnet Mask**, and **Default Gateway**. You will need these information later.
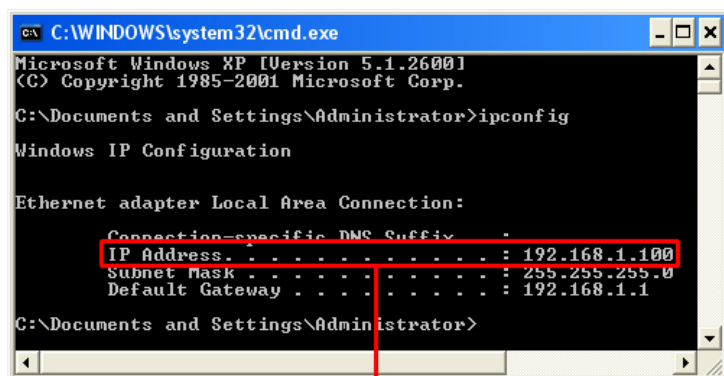

Step 4 Run the PS Utility by going to **Start**, **(All) Programs**, **PS Utility**, **PS Utility v2.00**.

Step 5 Make sure the Print Server is listed under the **Device Name** and click on **Change IP Address**.

6
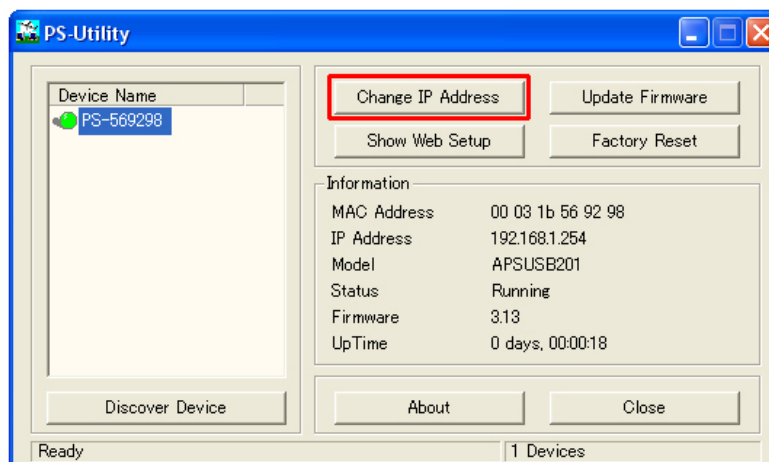
Step 6 In the **IP Address** field, enter a valid IP address, subnet mask, and default gateway that matches your local area network.

For example: If your computer's **IP Address** is **192.168.1.100**, enter the same three numbers: **192.168.1** in the corresponding fields.

IP Address of the Print Server
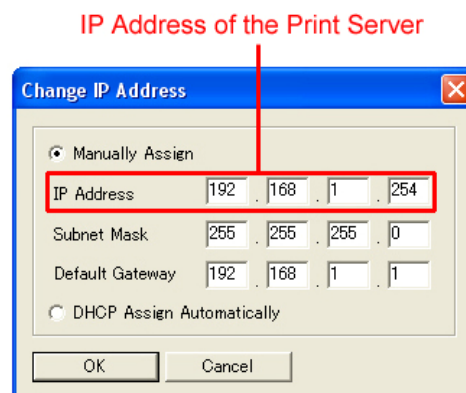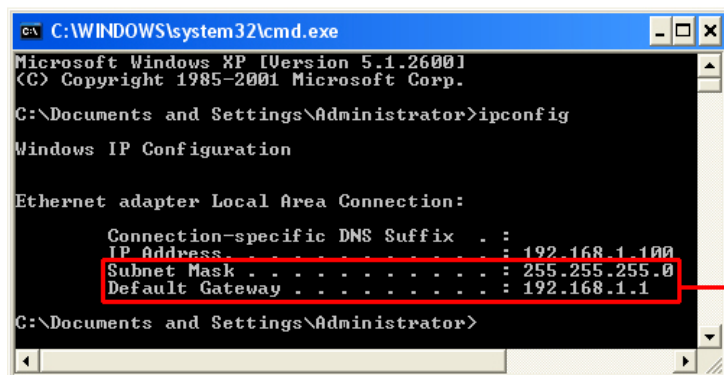
IP Address of your computer

Note: You can leave the last IP Address number **254** as is unless another network device (i.e. the **Default Gateway**) is already using that number. If another network device is already using **254**, then change it to another number that is currently not in use (preferably **200 - 253**).

For the **Subnet Mask** and **Default Gateway** fields, enter the same number as the TCP/IP setting of your computer.
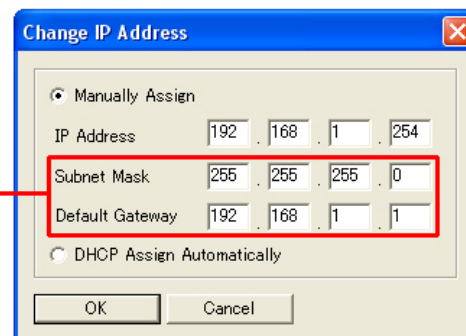
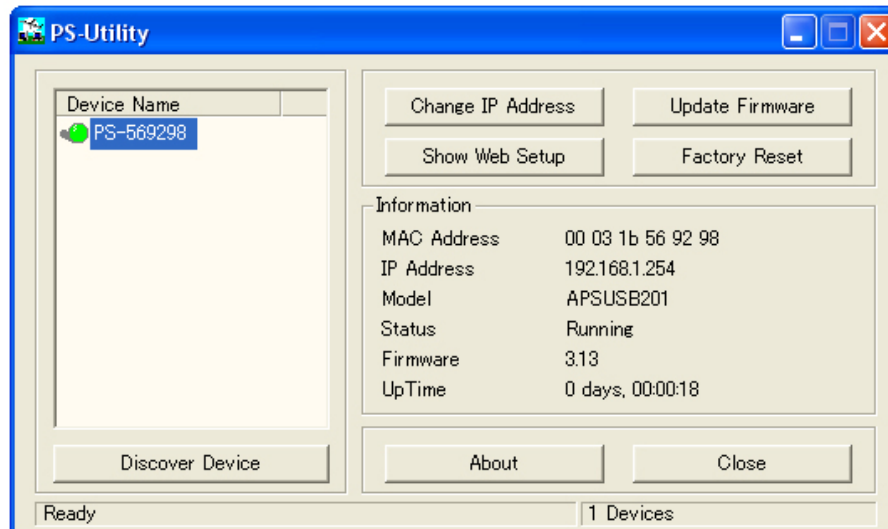
Step 7 Click **OK**.

Step 8 Close the PS Utility program.
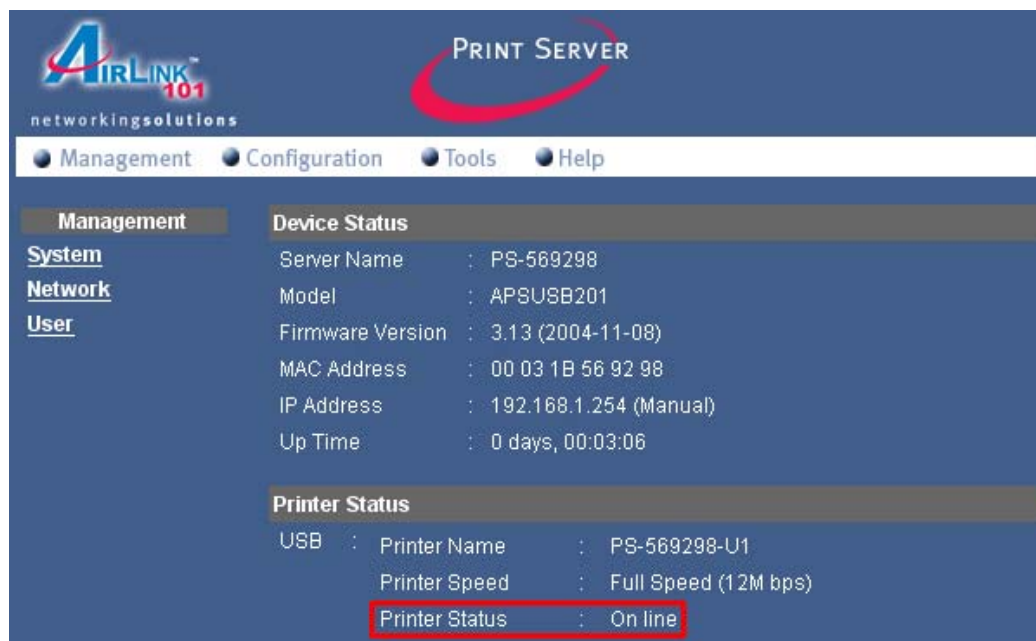
5. Verifying Network Connection

Step 1 Run the PS Utility by going to **Start**, **(All) Programs**, **PS Utility**, **PS Utility v2.00**.

**Step 2** Make sure the Print Server is detected under the **Device Name**.

Step 3 Click on **Show Web Setup** to display the Print Server's **Web Configuration Utility**.

Step 4 Make sure the **Printer Status** displays **On line**.

Step 5 Click on the **Tools** link and select the port your printer is connected to and click the **Test** button. The Print Server will perform a low-level print test, bypassing the operating system layer.
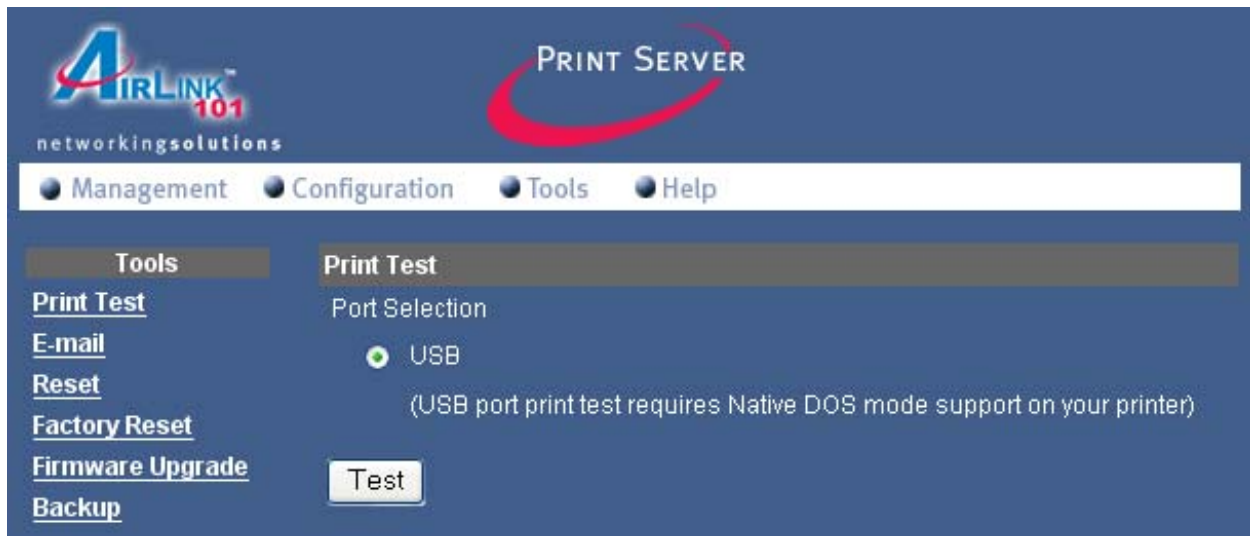
Note: Your printer should print out a test page. If not, verify that the printer is powered on and all cables are securely connected and try again. If the printer still fails to print a test page, please check the printer compatibility list on our web site at www.airlink101.com for a list of compatible printers. If your printer is not on the list, it may not be compatible with the Print Server.

Step 6 Once the printer successfully prints out a test page, you may close the web browser and proceed to the next section.

6. Running PS Wizard

Warning: Make sure you have installed the printer driver locally on every computer that will use the print server in your network before running the PS Wizard. Otherwise, the PS Wizard will not run properly. Be sure to run the PS Wizard on all the computers that will use the print server in your network.

Step 1 Insert the provided CD and wait for the setup menu to appear.
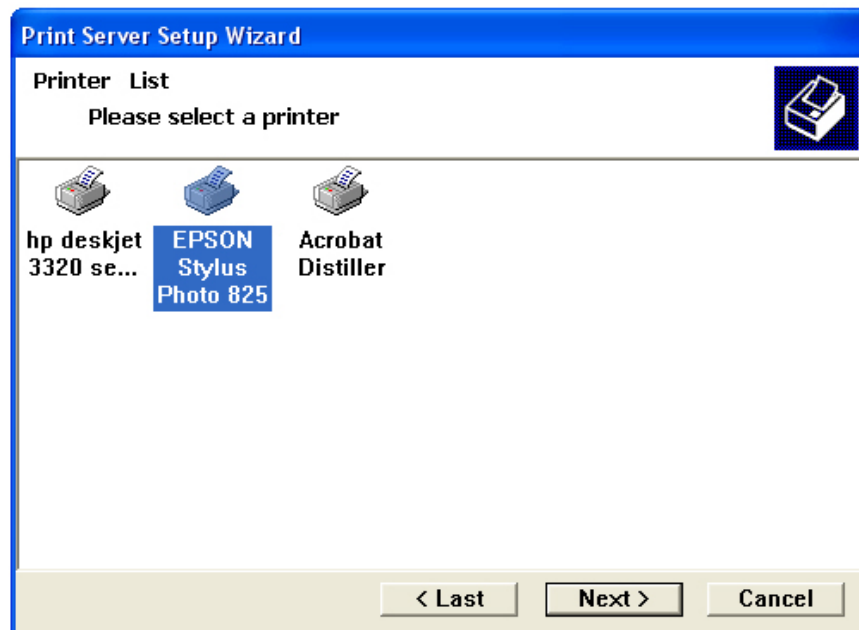
Step 2 Click on **PS Wizard**.

Note: If the setup menu does not appear automatically after you have inserted the CD, go to **Start**, **Run**, type **D:\autorun.exe** (where **D** is the letter of your CD drive) and click **OK**.
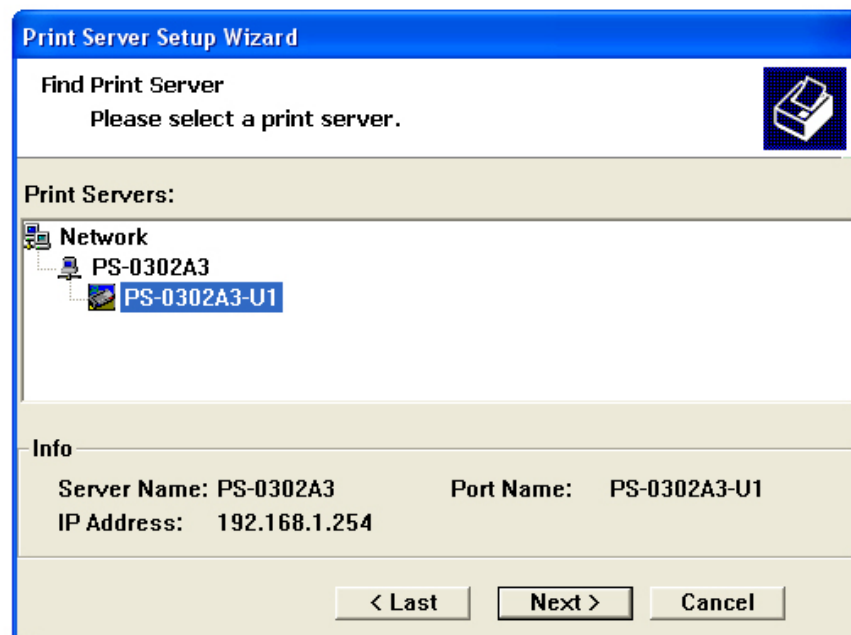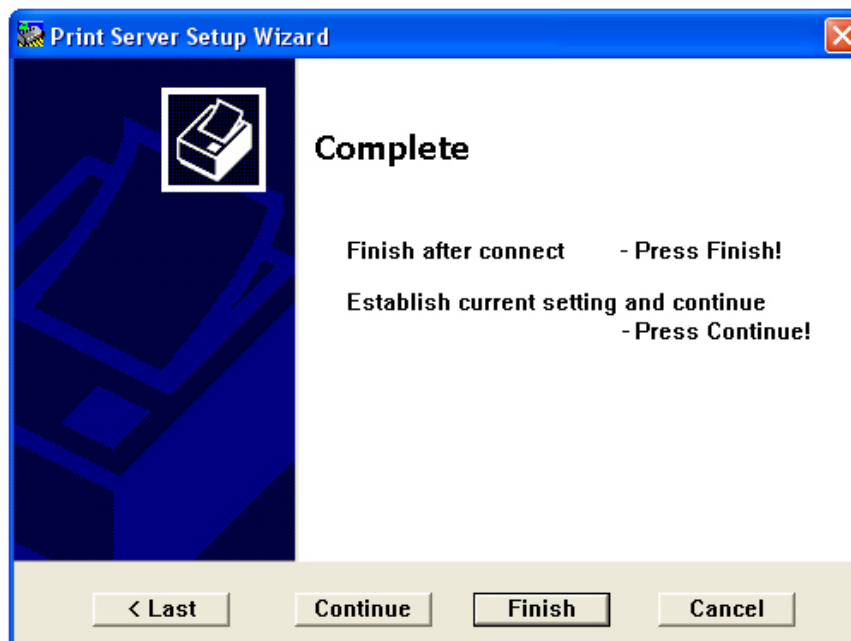
Step 3 Click **Next**.

Step 4 Select the printer that is connected to the Print Server and click **Next**.

Step 5 Double-click on the **Print Server Name**, select the **Printer Port Name**, and click **Next**.

Step 6 Click **Finish** and **OK**. (For Windows 95/98/ME, you'll need to reboot the computer).


**Step 7** Run the **PS Wizard** on all the computers in your network that will use the Print Server.

7. Performing Operating System Print Test

The final step in setting up the Print Server is to perform an operating system print test. Please note that the instructions below are for Windows XP, but the steps are similar for all the other Windows operating systems.
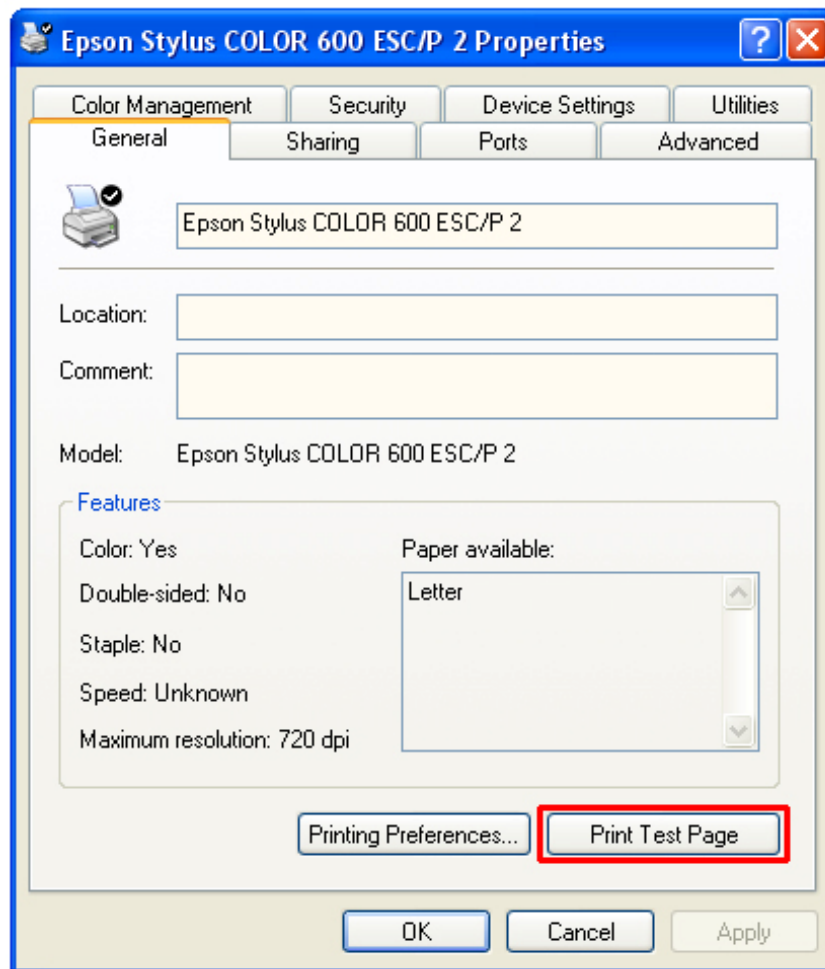
Step 1 Click on **Start**, **Settings**, **Printers and Faxes**.
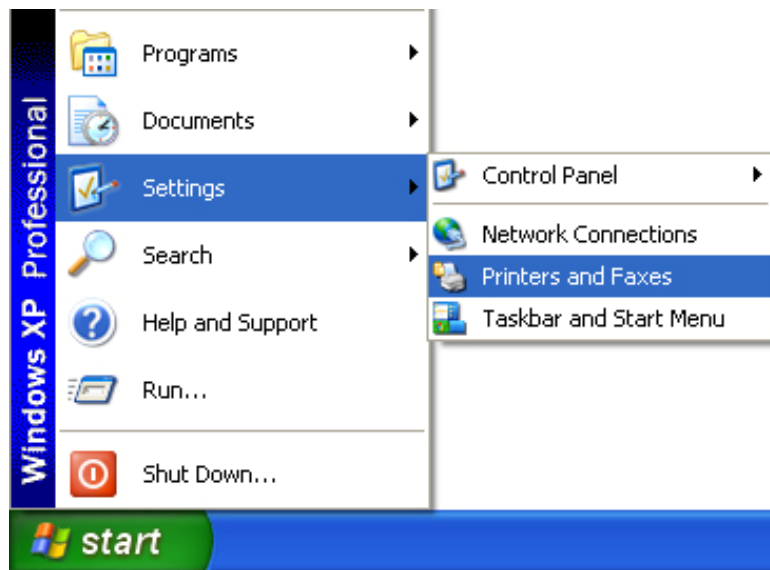
Step 2 Right-click on the printer that is connected to the Print Server and select **Properties**.

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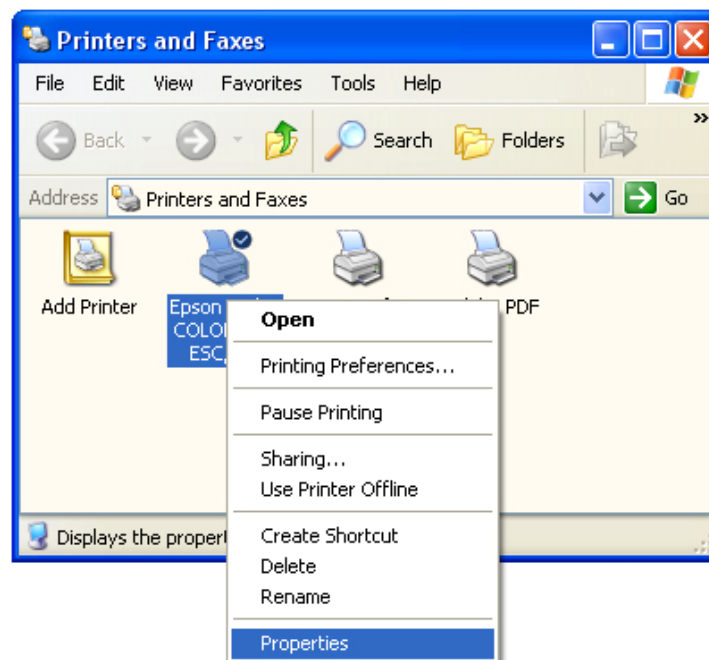
Step 3 Click on the **Print Test Page** button. Windows should print out a test page.


You have successfully configured the Print Server for printing.

8. Using the PS Utility

PS Utility is a user-friendly program that allows you to configure some basic functions of the Print Server such as performing a factory reset or updating the firmware. To access the complete management features of the Print Server, you'll need to use the **Web Configuration Utility**, which is described in the next section.

Note: If you haven't installed **PS Utility** yet, please follow the installation instructions as described in **Section 3, Installing PS Utility**.

You can start PS Utility by going to **Start**, **(All) Programs**, **PS Utility**, **PS Utility v2.00**.
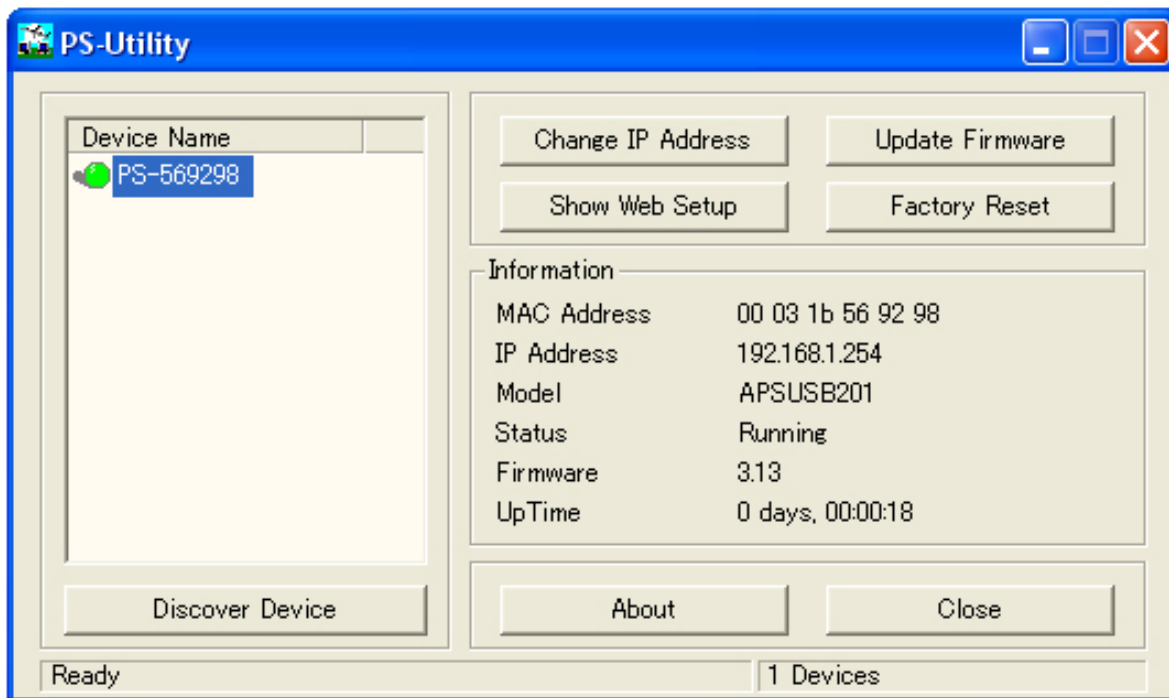
Device Name: Lists any Print Server that is connected on your network.
Information: Displays the basic information for the selected Print Server.
Discover Device: Click on this button to automatically search for any Print Server that is connected to your network.
Change IP Address: Click on this button to change the IP Address and other TCP/IP settings for the Print Server.
Update Firmware: Click on this button to update the Print Server's firmware.
Note: You must download the updated firmware from www.airlink101.com first.
Show Web Setup: Click on this button to display the **Web Configuration Utility**.
Factory Reset: Click on this button to reset the Print Server back to factory settings.
About: Click on this button to display the version number of the PS Utility.
Close: Click on this button to close PS Utility.

9. Using the Web Configuration Utility

The **Web Configuration Utility** allows you to manage the full features of the Print Server with an easy-to-use user interface.

You can start the **Web Configuration Utility** in two ways:

1. Click on the **Show Web Setup** button in **PS Utility**.

or

2. Open your web browser, type in the IP address of the Print Server in the URL address field, and press **Enter**. (Default IP address is **192.168.1.254**).

The **Web Configuration Utility** will display the **Management**, **System** page.

Click on any of the links to display the corresponding page.

9.1 Management

System

The **System** page displays the status of your Print Server, printer, and network.

Click on **Refresh** to update the page.

Network

The **Network** page displays the status of your local area network.

Click on **Refresh** to update the page.

User

The **User** page displays the **Users Printing-Log**, which shows which users have submitted print jobs through the Print Server.

Click on **Refresh** to update the page.

9.2 Configuration

Click on **Configuration** to display the Configuration page.

System

The **System** page allows you to configure basic settings of the Print Server.

Server Name: You can rename the Print Server to a more user-friendly name or keep the factory default name.
Location: You can make note of where the Print Server is located (optional).
Admin Contact: Name of the administrator to contact for help (optional).
Password: You can set a password for the **Web Configuration Utility** so only authorized personnel can access and change the Print Server's configuration.
USB Port Name: You can rename the Print Server's port name to a more user-friendly name or keep the factory default name.
Description: Describe the printer that is attached to the Print Server (optional).
PJL Printer: Choosing **Yes** will enable the support for Hewlett-Packard PJL (Printer Job Language) standard for bi-directional printing. (Default is **No**).

Click **Save** to save and activate any configuration changes. Click **Cancel** to cancel the changes.

Network

The **Network** page allows you to configure various network settings of the Print Server.

TCP/IP

Manually Assign: Choose to manually assign an IP address for the Print Server **(strongly recommended)**, or to obtain an IP address automatically.
IP Address: Assign an IP address for the Print Server or keep the default.
Subnet Mask: Assign a Subnet Mask for the Print Server or keep the default.
Default Gateway: Assign a Default Gateway for the Print Server or keep the default.

DNS: Enter up to two DNS Servers' IP Address (optional)
UPnP: Choose to Enable or Disable Universal Plug and Play.
MAC Rendezvous: Choose to Enable or Disable Mac Rendezvous.
Second HTTP Port: Choose to Enable or Disable a second http port for remote web configuration and IPP printing. If enabled, enter the second port number.

Microsoft Network

Workgroup: Enter the name of your workgroup.

AppleTalk

AppleTalk Zone: Enter the name of your AppleTalk Zone.
USB: Enter your printer type.
PostScript Level: Select your PostScript level.
Font Group: Select your Font Group.

Click **Save** to save and activate any configuration changes. Click **Cancel** to cancel the changes.

User

The **User** page allows you to define which users can access the Print Server.

Printing Control

By configuring the **Enable User Printing Control** option (**Yes** or **No**), the user in the User List is permitted to access the print server or not. For the user(s) who is not in the User List, you can also limit the access right by setting the **Allow Undefined Users Printing** option to **Yes** or **No**.

Define Users

You can add/delete the user(s) to/from the User List. The User List at the bottom of the screen displays the current defined user and related information for the Print Server.

Click **Save** to save and activate any configuration changes. Click **Cancel** to cancel the changes.

E-mail

The **E-mail** page allows you to set up e-mail alerts and e-mail printing.

E-mail Account

You can assign an E-mail address to the Print Server so that your mail can be printed out directly (ASCII text only). To enable this function, enter the E-mail account in the **Print Server E-mail Address** box.

- **Incoming E-mail (POP3) Server Address:** Enter the server address that is used to receive your E-mail.
- **Outgoing E-mail (SMTP) Server Address:** Enter the server address that is used to send your E-mail.

If your mail server needs to verify the user when sending E-mail, you have to input the **Account Name** and **Password**.

E-mail Notification

You can set the Print Server to send an E-mail alert message when the printer status changes. To enable this function, set the **Enable e-mail notification for printer status**

changing option to **Yes**. Then, input the administrator's E-mail address in the **Admin E-mail Address** field.

E-mail Printing
- **E-mail Printing (ASCII Text Only):** Select **Enable** to enable the E-mail printing function.
- **Receive E-mail Interval:** Enter the number in this box to set up the time (in minutes) to check/receive E-mails regularly.

Click **Save** to save and activate any configuration changes. Click **Cancel** to cancel the changes.

SNMP

SNMP (Simple Network Management Protocol) is a set of protocols for managing complex networks.

Community 1/2/3: Enter a name in the **Name** box, and configure the **Access Right** by selecting **Read Only** or **Read/Write** from the drop-down menu.

Click **Save** to save and activate any configuration changes. Click **Cancel** to cancel the changes.

9.3 Tools

Click on **Tools** to display the Tools page.

Print Test

The **Print Test** page allows you to perform a low-level print test, which bypasses the operating system layer. The test page is sent directly from the Print Server to the printer. This allows you to test the compatibility of your printer with the Print Server.
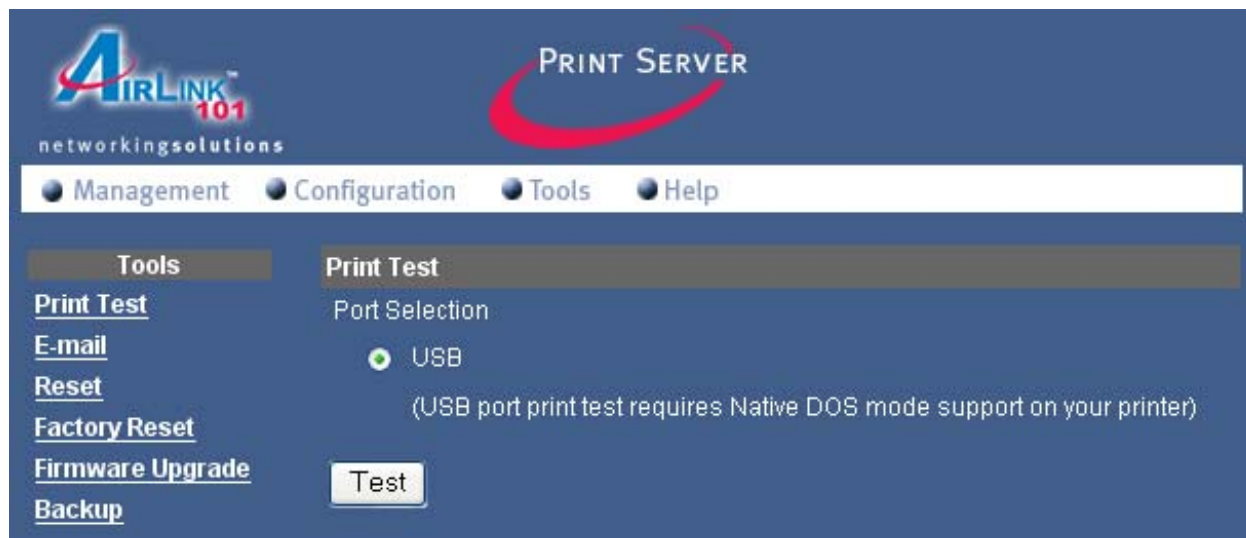
Select the port that the printer is connected to and click on the **Test** button.

Your printer should print out a test page. If not, verify that the printer is powered on and all cables are securely connected and try again. If the printer still fails to print a test page, please check the printer compatibility list on our web site at www.airlink101.com for a list of compatible printers. If your printer is not on the list, it may not be compatible with the Print Server.

E-mail
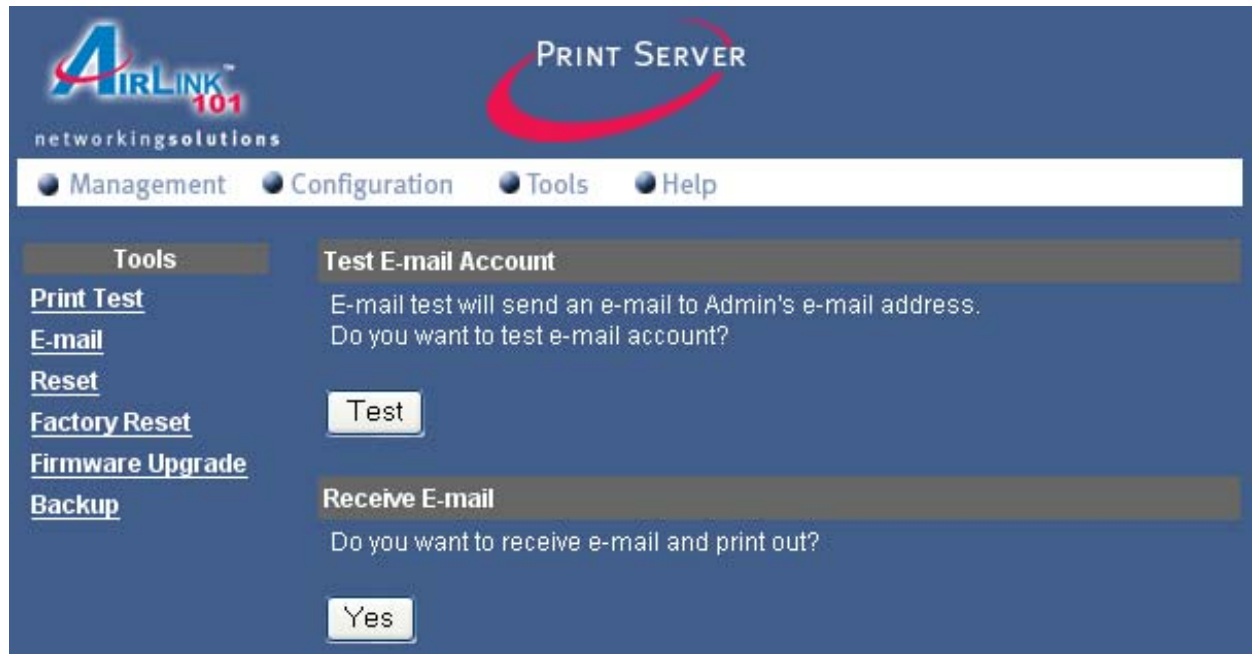
Test E-mail Account
Click **Test** to send a test E-mail message to the given administrator's E-mail address.

Receive E-mail
Click **Yes** to immediately check and receive E-mail, and then print out the mail when available.

Reset

The **Reset** page lets you reset the Print Server without changing the setting back to factory default.
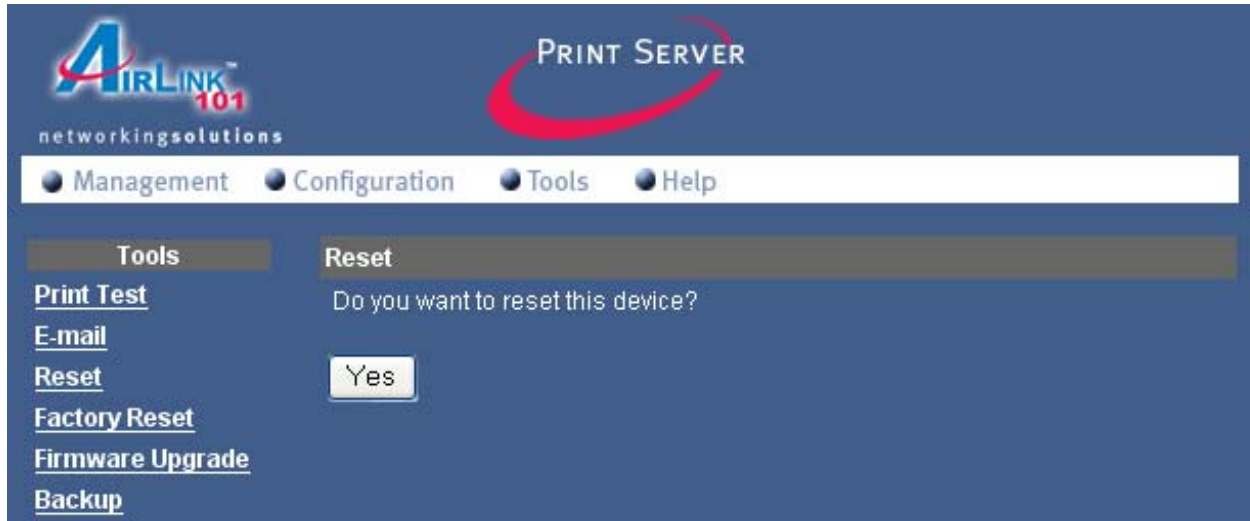
Click on the **Yes** button to reset the Print Server.

Factory Reset
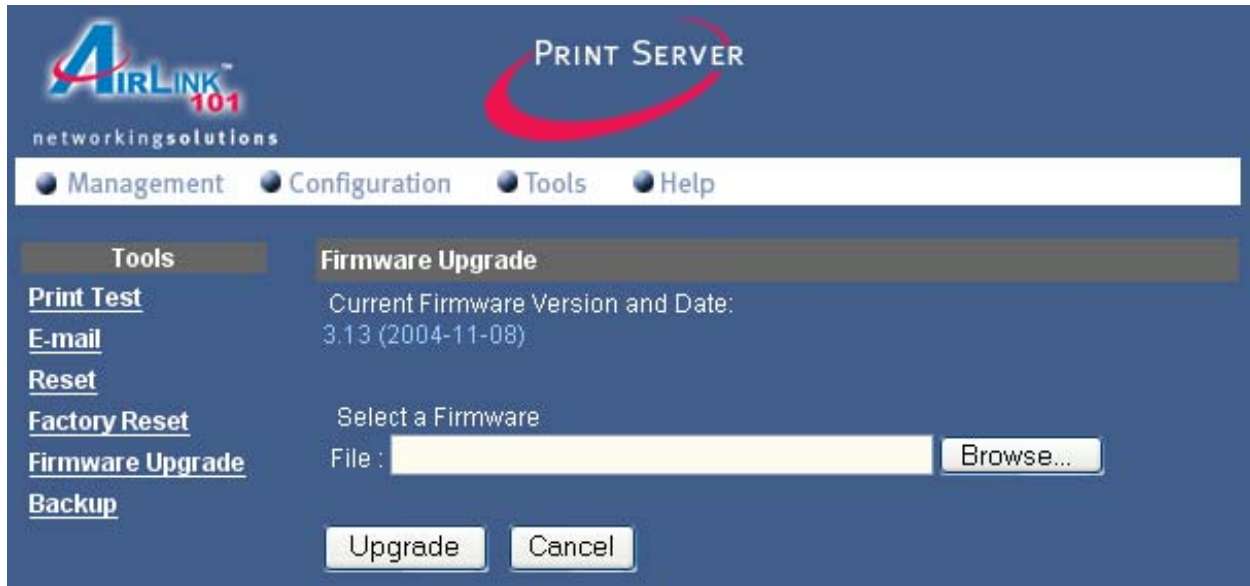
The **Factory Reset** page lets you reset the Print Server's setting back to factory default.

Click on the **Yes** button to perform a factory reset on the Print Server.

Firmware Upgrade

When a new version of the firmware is available on our web site, www.airlink101.com, you can download the new firmware and proceed to the following page to upgrade the firmware.

1. Click **Browse** and browse to the location of the downloaded firmware.
2. Click **Upgrade** to begin the upgrade process.

Note: you may need to unzip the downloaded file first.

<u>Backup</u>

You may use the Backup feature to save the Print Server's configuration settings.
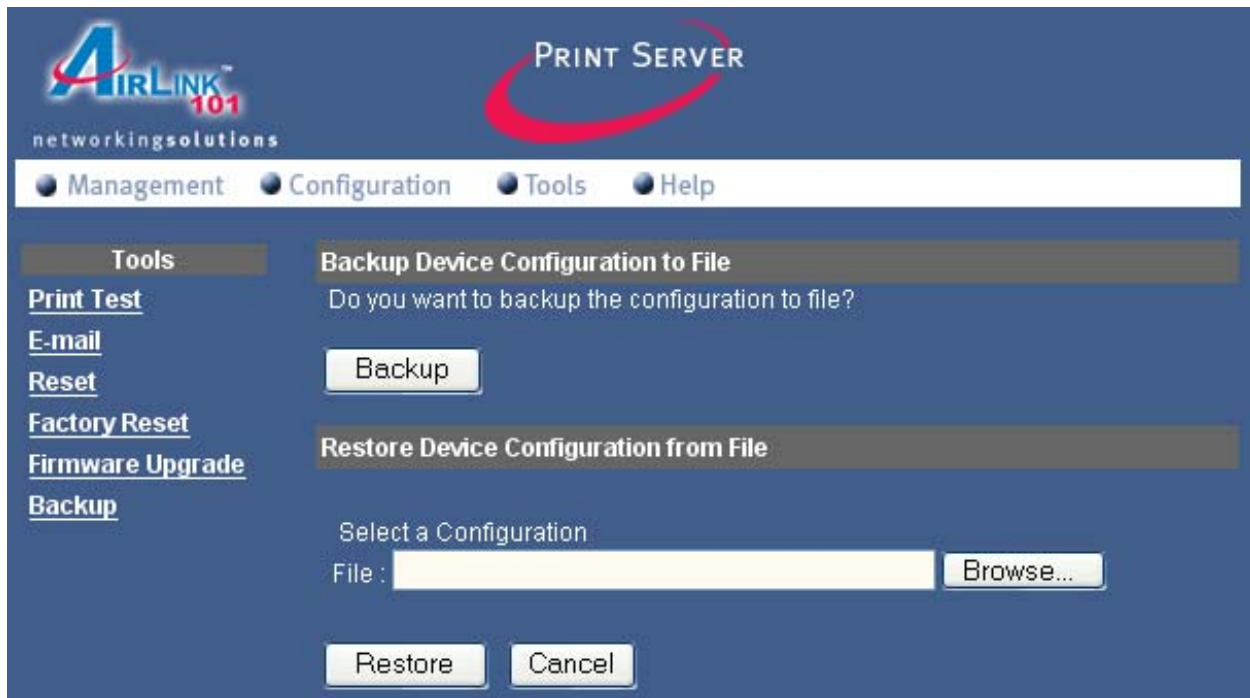
Backup Device Configuration to File
Click **Backup** to backup your current configuration of the print server. The file will be saved as Config.cfg

Restore Device Configuration from File
You can reload a configuration that you saved before. Click **Browse** to point to the backup file (Config.cfg), and then click **Restore**.

9.4 Help

Click on **Help** to display the Help page.

<u>About</u>

The **About** page displays the Print Server's firmware version number.

10. Printing in Mac OS

This section describes how to set up your Mac OS settings to work with the Print Server.

10.1 Using Rendezvous

Mac OS X provides a new feature called **Rendezvous**. Rendezvous is a networking technology standard that lets you create an instant network of computers and devices to share files and printers and even contact other people on the network.

For the printer connection, the Mac OS X Print Center application uses Rendezvous to discover Rendezvous-enabled printers on the network. When you add your computer to a network, Print Center automatically discovers any available printer. All you have to do is select the one you want to use and then start printing. You can add a new printer to the network and all the users on the network will see the new printer automatically appear in their Print Center without any configuration.

The following instructions provide a common way of using Rendezvous:

Step 1 Launch **Print Center**. Press and hold the **Option** key and click the **Add** button.
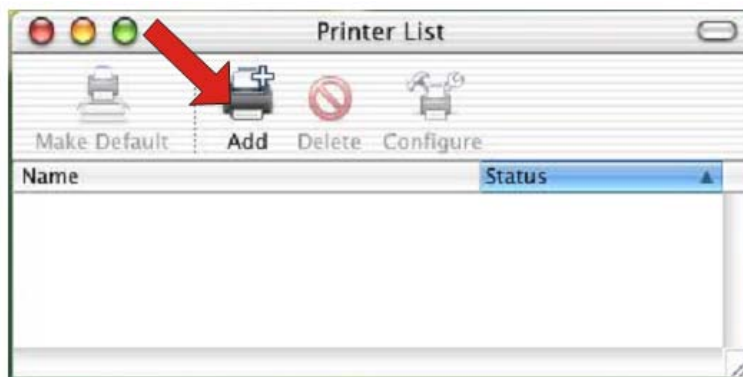
Step 2 Select **Rendezvous** from the pop-up menu.
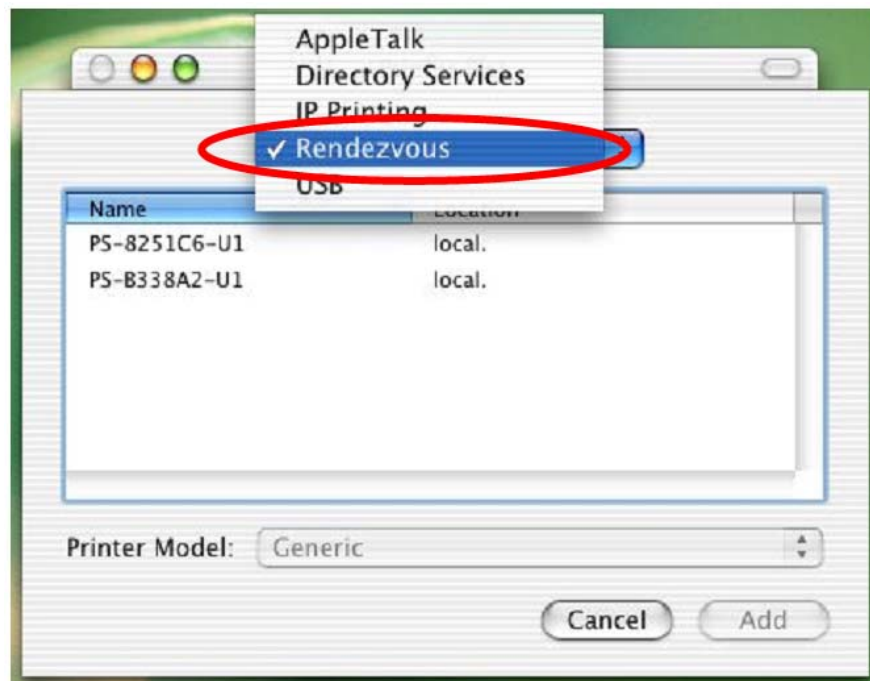
Step 3 A list of Rendezvous-enabled printers will appear in the list.
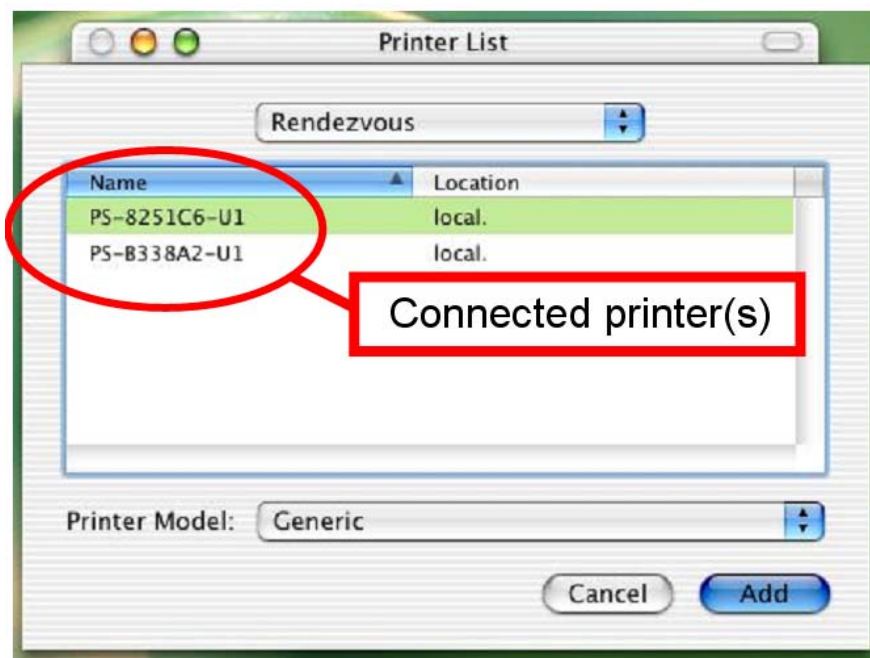
Step 4 Choose the desired printer and select **Generic**.
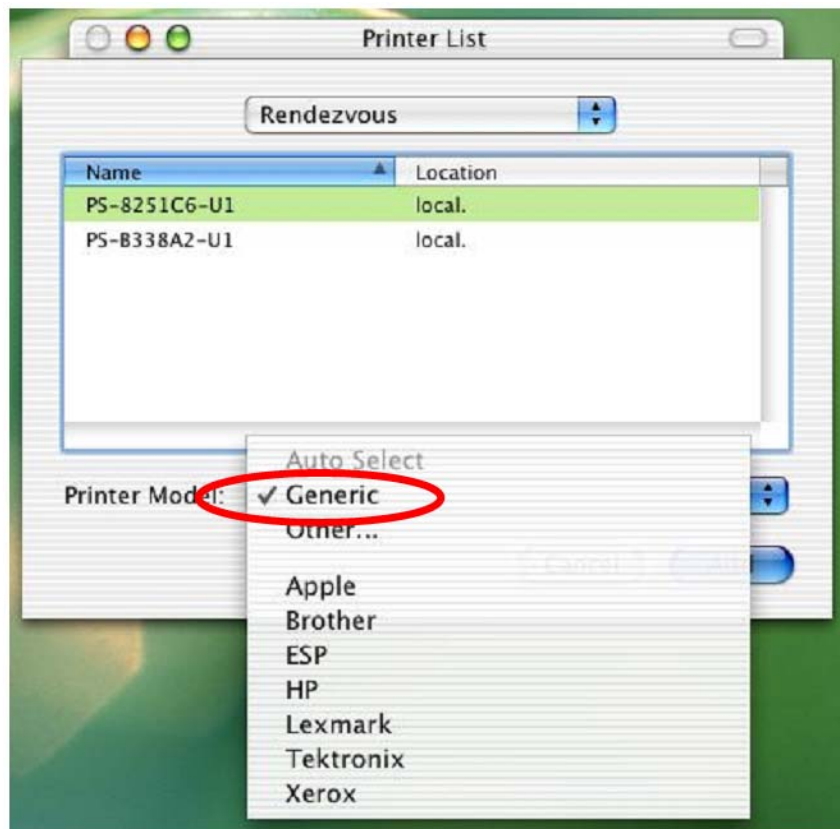
Step 5 The printer is installed into the system successfully.
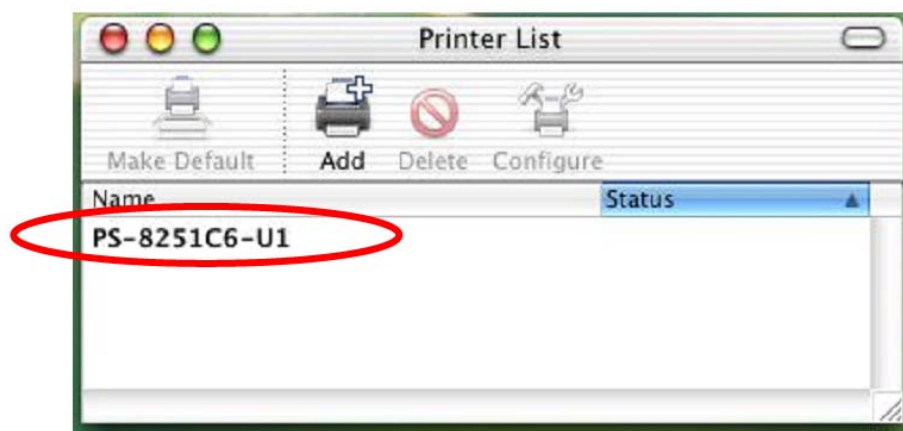
10.2 Setting AppleTalk/LPR Printing

If you want to use **AppleTalk** or **LPR printing** instead of **Rendezvous**, Follow the instructions below.

For Mac OS X

Step 1 After attaching the Print Server to your network, change the IP Address of your Macintosh computer in order to access the Print Server's Web Configuration Utility. The default IP Address of the Print Server is *192.168.1.254*. Change your IP Address to *192.168.1.x*, where *x* is any number between 2 and 200.

Step 2 Open the **System Preference** window and click **Network**. In the Network window, select the **AppleTalk** tab and check the **Make AppleTalk Active** check box.
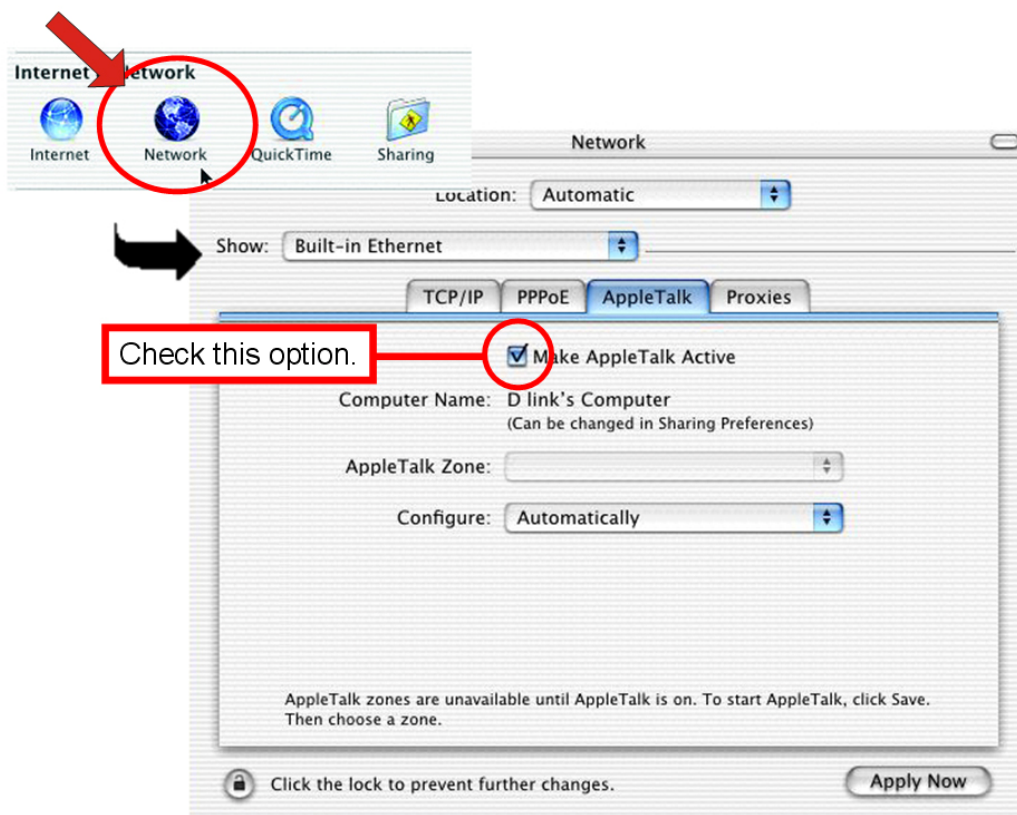
Step 3 To print, open a document and select **File** > **Print** from the menu.
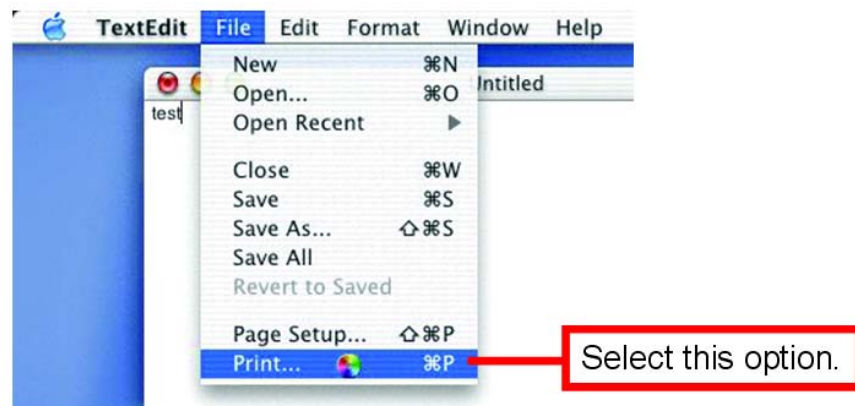
Step 4 Select **Edit Printer List** from the **Printer** dialog box.
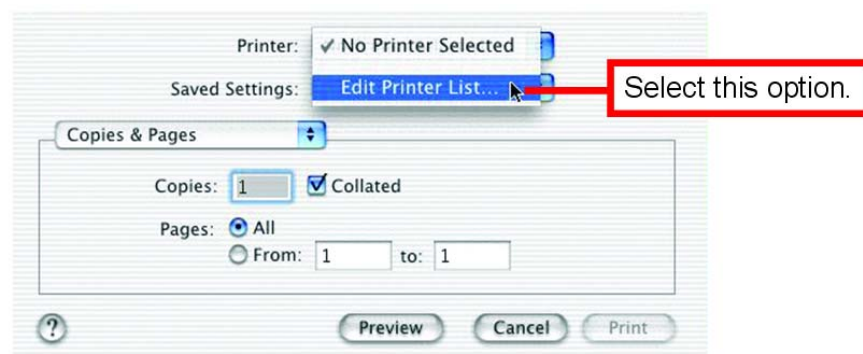
Step 5 Click **Add Printer** and then select the desired printing protocol (*AppleTalk* or *LPR Printers using IP*).

AppleTalk: After selecting **AppleTalk**, the Port Name of the Print Server will be displayed. Select the Port to which the PostScript printer is connected. Then, select the printer model from the dialog box. Click **Add Printer** to complete the Printer Port configuration. Select the Printer Port just configured in the Print window. Click **Print** to print your document.

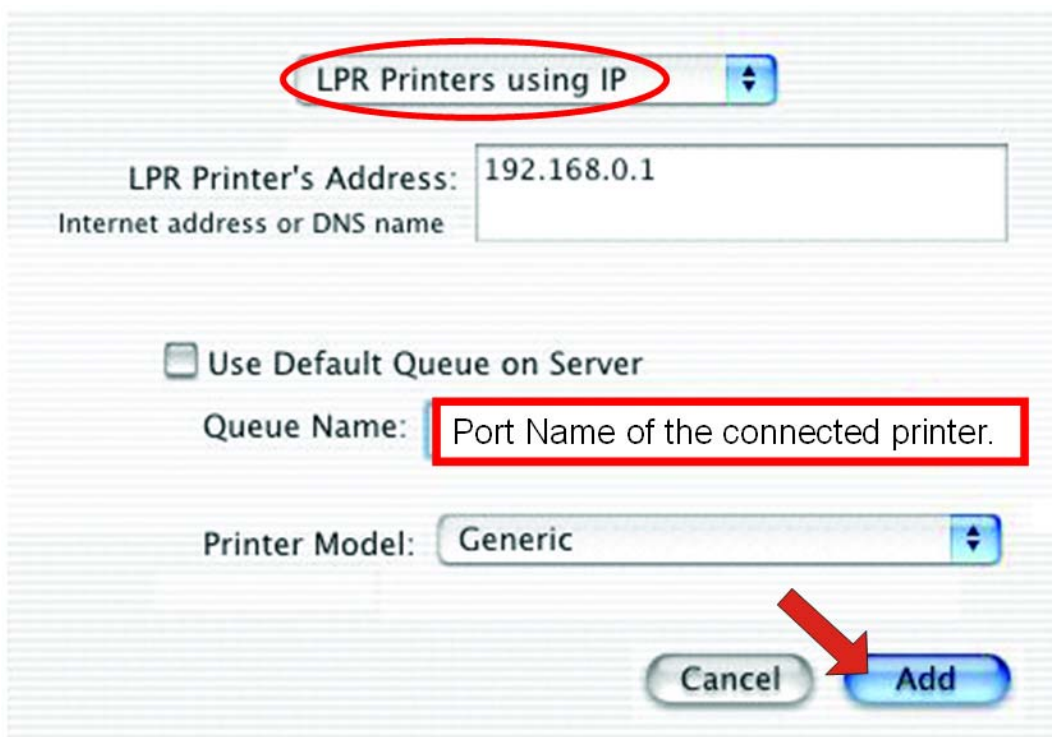**LPR Printers using IP:** When you select **LPR Printers using IP** Protocol, type the IP Address of the Print Server into the **LPR Printer's Address** field. In the **Queue Name** field, type in the Print Server's port name that the PostScript printer is connected to. Select the printer model from the dialog box, and select the printer model from the pull-down menu. Click **Add** to complete the process. Close all Print Center windows and select the Printer Port that was just selected. Then, click **Print** to print the document.

LPR Printers using IP

LPR Printer's Address: 192.168.0.1
Internet address or DNS name

☐ Use Default Queue on Server

Queue Name: Port Name of the connected printer.

Printer Model: Generic

Cancel   Add

For Mac OS 9

If you use Mac OS 9, you can use the AppleTalk network protocol using the EtherTalk transport or a proprietary low-speed LocalTalk transport. Your Print Server can be used for network printing to PostScript printers. You can print from any Mac OS computer connected to your Ethernet network either directly using an EtherTalk connection or indirectly through a LocalTalk-to-EtherTalk router.

To set up the Print Server for AppleTalk printing:

Step 1 Please confirm that the AppleTalk protocol is enabled in your Macintosh computer.

Step 2 Change the IP Address on one of the computers within your network to **192.168.1.x** (where **x** is any number between 2 - 200).

Step 3 Type the Print Server's IP address into the address field of your web browser. (Default IP Address is **192.168.1.254**).

Step 4 Click on **Configuration** and go to the **AppleTalk Protocol** page. If your AppleTalk network is divided into AppleTalk zones, you have to specify which zone the Print Server should be in. You should locate the Print Server in the same zone as most of the users who will be using it. If your network is not divided into zones, it should contain a single asterisk "*".

To print from Mac OS Client Workstations:

Note: The actual settings of selecting a PostScript printer connected to your Print Server may be different from the instructions provided below depending on the devices and the software you are using.

**Step 1** Select **Chooser** from the Apple menu to choose a printer connected to the Print Server.

Step 2 In the left column of the **Chooser** window, select the desired printer. Please confirm that AppleTalk is set to *Active*. A list of all networked PostScript printers will be displayed within the right column.
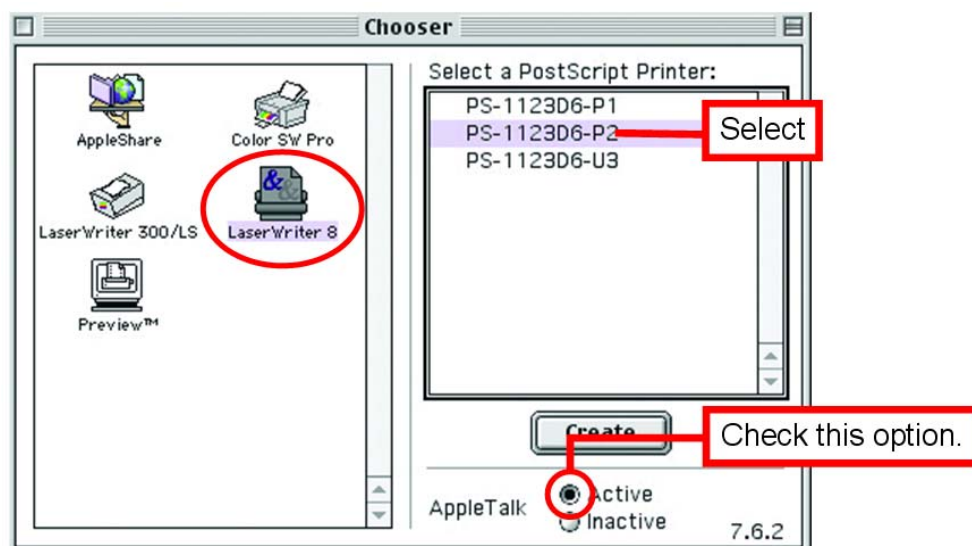

Step 3 Double-click the name of the **Printer Port** you wish to use.

Step 4 If you have not previously set this printer as the default printer, your computer will prompt you for a PostScript Printer Description file. Choose **Select PPD**.
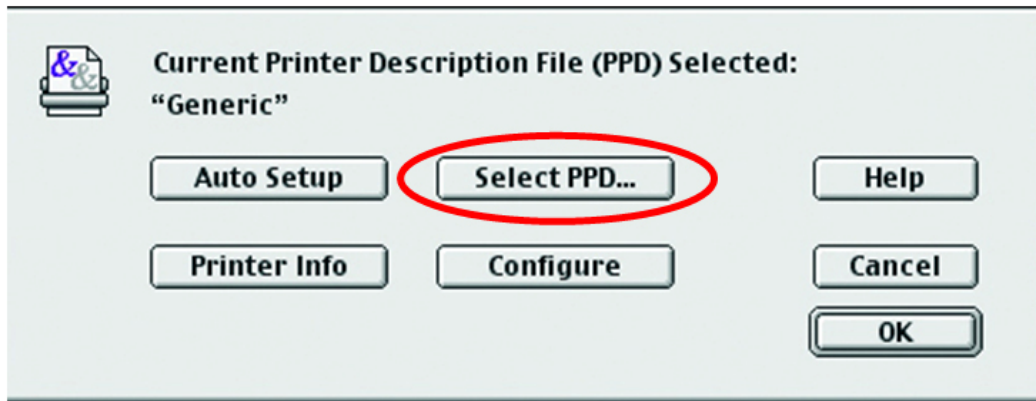
Step 5 Select the appropriate printer description file for your printer. Click **Open**.
(If your printer is not listed, click **Generic** to use a generic printer description).
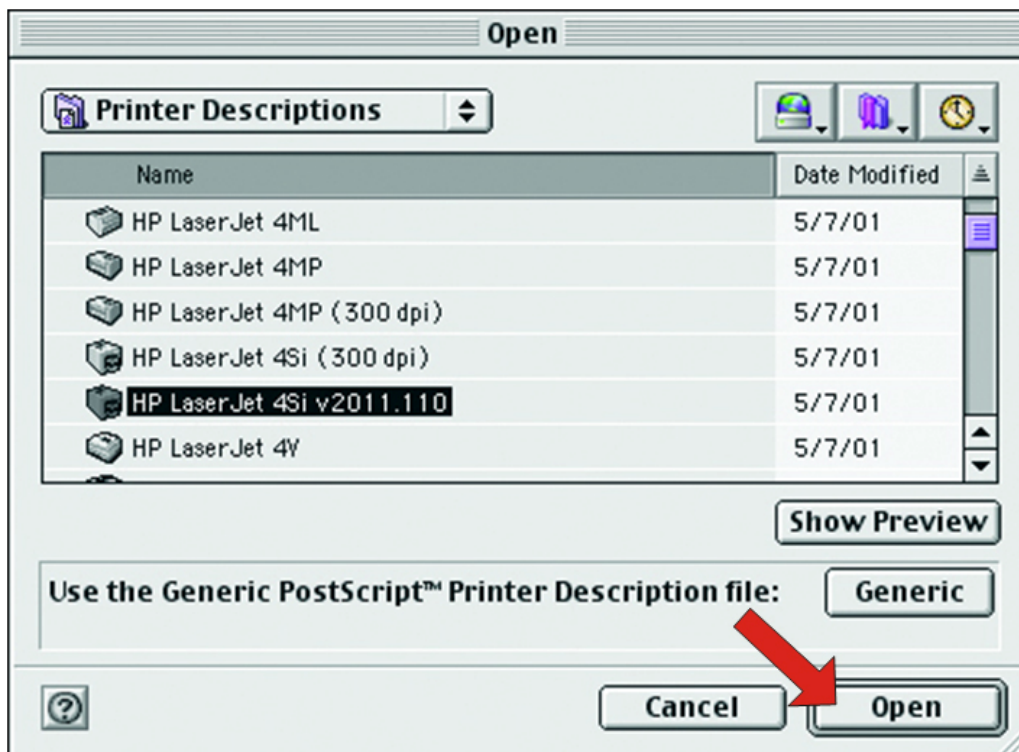
The selected printer will become your computer's default printer. You may need to choose **Page Setup** in any application you have opened.

11. Product Specifications

Printer Connection

Printer Interface: One USB port, compliant with USB 2.0 Hi-speed standard.

Network Connection

Network Interface: One 10/100 Fast Ethernet port (RJ-45 connector).
Network Data Transfer Rate: 100Mbps.

Network Protocol Support

Transport Protocols: TCP/IP, SMB, NetBEUI, and AppleTalk.
TCP/IP Protocols Support: BOOTP, SNMP, Telnet, FTP, LPD, DHCP, and IPP.

Hardware

SDRAM: 8MB.
Flash ROM: 2MB.

Operating System Support

- Windows 95/98/ME, Windows NT, Windows 2000/XP/2003;
- NetWare 5.x (NDPS LPR remote printing);
- HP-UX Unix, Sun O.S., Solaris, SCO Unix, AIX;
- Unixware and Linux;
- Mac OS, AppleTalk.

Management

Standard: SNMP
MIBs: MIB-II (RFC 1213).
Utilities: PS Utility, PS Wizard.

Environmental and Physical

Power Supply: 5VDC.
Operating Temperature: 0°C to 50°C.
Storage Temperature: -25°C to 55°C.
Humidity: 5% to 95%, non-condensing at 30°C.

EMI Compliance

FCC Class B, CE Class B, VCCI Class B

12. Appendix

Technical Support

E-mail: support@airlink101.com

Toll Free: 1-888-746-3238

Web site: www.airlink101.com